

ABSTRACT

Mid-level combining methods and systems that combine benefits of high level
5 and low level combining methods for generating HD (High Definition) radio signal
outputs. The High level IBOC combining technique combines the RF outputs of an
analog transmitter with an IBOC transmitter operating in a combined digital/analog
mode, and can include a properly phased, identical, analog component of the signal
feeding the analog transmitter. The low level combining technique includes splitting and
10 phase adjustment for the purpose of feeding the analog signal simultaneously to an analog
transmitter and an IBOC digital transmitter operating in a combined digital/analog mode.
The mid-level combining method and system uses attributes of the high and low level
methods and systems. Another mid-level combining method and system is for high
transmitter power output (TPO). Additional methods and systems for converting existing
15 transmitter room spaces to HD (High Definition) radio transmitters, without having to
add onto existing rooms and buildings.